BTEC Level 3 topics

BTEC Level 3 National Extended Certificate in Applied Science is equivalent to one A Level and is a two-year course which comprises of four units: Units 1 and 2 (year 1) and units 3 and 14 (year 2). Successful completion and passing of each unit guarantees the full BTEC level 3 National Extended Certificate qualification. The course comprises of 360 guided learning hours over the two-year course.

The four units are as follows:

Year 1

• Unit 1: Principles and Applications of Science I (mandatory, external exam assessment)

• Unit 2: Practical Scientific Procedures and Techniques (mandatory, internal assignment-based)

Year 2

• Unit 3: Science Investigation Skills (mandatory, external exam assessment)

• Unit 14: Applications of Organic Chemistry (optional, internal assignment-based)

Topics include:

Unit 1	Unit 2	Unit 3	Unit 14
• Cell structure and specialised cells • Types of tissues and linked diseases • Microscope practical and calculations • Oscillations • Electromagnetic waves and their uses • Refraction and reflection (practical elements) • Mole calculations and reaction masses	• Titration and calorimetry (assignment A) • Calorimetry and cooling curves (assignment B) • Chromatography (assignment C) • Skills' reflection (assignment D)	• Practical scientific skills (heavily-practical based unit and assessment)	• Structures, reactions and properties of functional group compounds (assignment A) • Reactions and properties of aromatic compounds (assignment B) • Structures and uses of isomers (assignment C)

• Percentage yield in reactions • Types of bonding • Intermolecular forces			• Investigating organic chemistry reactions for preparative chemistry practical skills (assignment D)